

REMARKS

In accordance with the foregoing, claims 1 – 9 and 18 - 29 are pending and under consideration. Claims 10 – 17 are withdrawn from consideration. No new matter is presented in this Amendment.

Rejection of claim 18 under 35 U.S.C. §102(e) over Sheem et al.

At page 3 of the Office Action, claim 18 was rejected under 35 U.S.C. §102(e) as being anticipated by Sheem et al. (U.S. Patent 6,355,377 B1) (hereinafter, "Sheem"). The Examiner referred to col. 7, line 51, et seq., of Sheem. For the following reasons, this rejection is respectfully traversed, and reconsideration is requested.

The following arguments are in addition to the arguments provided in Applicants' response dated November 27, 2008, incorporated herein by reference.

Claims 18 relates to a negative active material of a rechargeable lithium battery comprising a crystalline carbon core and a carbon shell coated on a surface of the crystalline carbon core, the carbon shell comprising crystalline carbon micro-particles. Sheem, at col. 7, line 51, et seq., and elsewhere, describes, a negative active material having a core and shell structure, and as noted by the Examiner, describes that the carbon shell is semi-crystalline carbon. However, contrary to what is alleged by the Examiner, Sheem contains absolutely no mention of crystalline carbon micro-particles and therefore, does not teach or suggest a carbon shell consisting essentially of crystalline carbon micro-particles as recited by claim 18. Therefore, the rejection should be withdrawn.

Rejection of claim 18 under 35 U.S.C. §102(b) over Miyabayashi et al.

At page 4 of the Office Action, claim 18 was rejected under 35 U.S.C. §102(b) as being anticipated by Miyabayashi et al. (U.S. Patent 5,401,598) (hereinafter, "Miyabayashi"). The Examiner referred to col. 2, line 14+ and col. 6, line 18+ of Miyabayashi. For the following reasons, this rejection is respectfully traversed, and reconsideration is requested.

The following arguments are in addition to the arguments provided in Applicants' response dated November 27, 2008, incorporated herein by reference.

Although Miyabayashi, at col. 2, line 14, et seq., col. 6, line 18, et seq., and elsewhere, describes a negative active material including a surface layer and a nucleus, Miyabayashi does not teach or suggest that the surface layer comprises crystalline carbon micro-particles as

recited by claim 18. Therefore, the rejection should be withdrawn.

Rejection of claims 1 – 9 and 19 - 29 under 35 U.S.C. §103(a) over Sheem in view of Miyabayashi

Also at page 4 of the Office Action, claims 1 – 9 and 19 – 29 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sheem in view of Miyabayashi for reasons of record. In particular, in the Office Action of August 31, 2007, the Examiner alleged that Sheem teaches a negative active material having a crystalline carbon core having an intensity ratio $Ra\ I(1360)/I(1580)$ of substantially 0.01 to 0.45, that the shell has a turbostratic or half-onion ring structure coated on the core, that the shell comprises crystalline carbon micro-particles and semi-crystalline carbon and that the shell has an intensity ratio $Ra\ I(1360)/I(1580)$ of 0.2 or more. In the present Office Action, the Examiner continued to allege that Sheem describes crystalline particles by reciting at col. 7, lines 51 – 53 that “[t]he negative active material includes ...0.1 to 50% of the semi-crystalline carbon shell having turbostratic structure. Regarding Miyabayashi, the Examiner alleged that the Rama spectra data provided relates to the shell of the particles described by Miyabayashi. For the following reasons, this rejection is respectfully traversed, and reconsideration is requested.

The following arguments are in addition to the arguments provided in Applicants’ response dated November 27, 2008, incorporated herein by reference.

Neither Sheem nor Miyabayashi describe a negative active material having a core-shell structure in which the shell comprises both crystalline carbon micro-particles and semi-crystalline carbon as recited by independent claims 1 and 21. As noted by the Examiner, Sheem, at col. 7, line 51 - 56 and elsewhere describes a negative active material having a core and shell structure and having a carbon shell that is semi-crystalline carbon. However, Sheem does not teach or suggest a carbon shell that includes crystalline carbon micro-particles and does not teach or suggest a carbon shell that includes both semi-crystalline carbon and crystalline carbon micro-particles as recited by independent claims 1 and 21. Miyabayashi also does not describe a negative active material having a core-shell structure in which the shell comprises both crystalline carbon micro-particles and semi-crystalline carbon as recited by independent claims 1 and 21. Miyabayashi describes a carbonaceous material having a nucleus and a surface layer around the nucleus, but does not describe a surface layer that includes crystalline carbon micro-particles and does not describe a surface layer that includes both semi-crystalline carbon and crystalline carbon micro-particles as recited by independent claims 1 and 21. Therefore, the

combination of Sheem and Miyabayashi does not teach or suggest all of the limitations of the independent claims 1 and 21.

Claims 22 – 29 depend from claim 18 and are allowable over Sheem and Miyabayasi for the reasons provided above with respect to claim 18.

Therefore, the rejection should be withdrawn.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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